

Hugh Gene Loebner February 6, 2002 Co/Crown Industries, Inc.  
155 North Park St. East Orange NJ 07017 Fax 973/672-7536 Tel 973/672-2277  
Ser No. 09/684,658 Examiner: E Garcia, Art Unit 3629 Filed 10/10/2000  
Weighted Pulley System Crowd Control Stanchion

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Dear Mr. Garcia,

Official

FEB 06 2002

This is my response to your paper #2, mailed 11/17/1001.

GROUP 3600

I have already submitted an abstract for this invention. However, I am re-submitting a duplicate as part of this reply

3/Amend A  
EP  
2-21-02

Could you particularly identify by page number and line number where the erroneous references may be found in the application? I know that on page 4, line 8 I mistyped the numeral 8 for top roller 6 (and on line 9 I mistyped numeral 6 for bottom roller 5). Is this the incorrect reference you mention? On my copy, this is crossed out and corrected in pen. I thought that I had corrected this on the submission copy of the application.

With regard to your objections to my claims, I take the following actions.

I append Claim 1 with increased spacing as per your request. I have corrected the typo you mention plus another.

I withdraw claims 2, 3 and 4 in light of Belshire's patent.

I am adding new claims 5, 6, 7 and 8 for a stanchion having an extendable tape system with a gravity retraction means that claims air piston means for braking. None of the referenced prior art mentions the use of a piston mechanism to act as a brake to slow the retraction of the tape. It is a significant improvement deserving of patent protection. Sakuma discloses lever means for locking a rope guidance system; I disclose piston means for slowing a tape guidance system.

I would like to point out what I consider to be a flaw or error in Sakuma's disclosure. Fig. 1 shows partition cord 13. How is cord 13 connected to weight 31? Sakuma shows the cord as simply connected. Now consider what happens when cord 13 is withdrawn from the post. That section of cord between its attachment to lever 27 and weight 31 simply "scrunches up" in the tube. Had Sakuma included a roller as a component of weight 31, then (a) the cord would not scrunch up in the tube (b) it would increase the extension range of the cord and (c) it would halve the force necessary to withdraw the tape. Note that Sakura writes at col. 4, lines 59-61 "For drawing the partition cord 13 out of the pole 1, the partition cord 13 is pulled out with a force greater than the load of the weight 31." Had weight 31 included a roller, Sakuma would have had a pulley rove to advantage and the force required to draw out the cord would have been less than the weight of the pulley. The fact that Sakuma neglects to include pulley means, despite the manifest advantages of a pulley, indicates that pulley mechanisms are not, in general, obvious when applied to guideline stanchions.

I respectfully disagree with your conclusion that the European patent of Heitzmann and Marcellier renders my invention or claims obvious. You say, "mere duplication of the essential working parts of a device involves only routine skill in the art." I agree. However, "mere duplication" of a bottom roller would accomplish nothing. It is the requirement that the roller be associated an

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additional top roller, and that the tape be laced between the two, and in a particular manner, that makes this more than "mere duplication."


Let us examine Heitzmann and Marcellier's patent more closely. The inventors have actually incorporated two additional rollers, 10. Consider that these rollers would have to be ordered, shipped, received and paid for. They would have to be incorporated into the stanchion post. They add cost and complexity to the stanchion, yet, what function do these two rollers perform? They do not enable the storage of a significantly longer tape for greater extension range. They do not reduce the force necessary to withdraw the tape. They appear to be for guidance of the tape, but the tape is being withdrawn in a linear fashion and does not need the guidance. The fact is that these two rollers do nothing. Suppose that we move the two rollers as depicted in my diagram on next page. It too, has four rollers. However in this configuration, there is a four-fold storage of the tape as compared to a mere two-fold storage as revealed in the Heitzmann and Marcellier patent. As an added benefit, the tension on the cord is 1/4 of the weight instead of 1/2 that it would be using Heitzmann and Marcellier's configuration.

The invention described in my application has been reduced to practice and is currently on sale as Crown Industries, Inc.'s "Tape Top" model stanchion. This item is a commercial success. Its success is due in large measure to the fact that the item has a tape extension capability of 10 feet. The reason that it has such a long extension capability is because it was designed with a pulley system having multiple lower rollers and hence stores the tape as more than two plies.

For example, the Lawrence Metal Companies "800 Series Tensabarrier" posts have only a 7' 6" extension capability. This can be verified by going to their website:  
<http://www.lawrencemetal.com/productlist.html?subcategory=800+Series>  
The Alvarado Corporation "Escort" model retractable Belt Stanchion has a maximum extension of 7'. This can be verified by going to their website:  
<http://www.alvaradomfg.com/escort.htm>

For these reasons I aver that my design with multiple lower rollers is more than a mere duplication of a single lower roller. Given the advantages of a compound pulley with two or more lower rollers, and the fact that Heitzmann and Marcellier did not realize to arrange their rollers in the clearly superior manner depicted in my attached diagram, I respectfully request that you allow claim 1 for a stanchion comprising a pulley system having a plurality of lower rollers.

Yours truly,



Hugh Loebner, Inventor

**FAX COVER SHEET****DATE:** February 6, 2002**FROM:** Hugh Loebner, Inventor, Fax 973.672.7536**TO:** Ernesto Garcia, Examiner, Fax 703-305-3597**ART UNIT** 3629**RE:** Appl Ser. No: 09/684,658**Weighted Pulley System Crowd Control Stanchion****Total pages including this cover sheet – 7****Official****FAX RECEIVED**

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**GROUP 3600**

Applicant : Hugh G. Loebner  
Appl. No. : 09/684,658  
Filed : Oct. 10, 2000  
Title : Weighted Pulley System Crowd Control Stanchions

Official

Grp./A.U. : 3629  
Examiner : Ernesto Garcia

5/Amend  
18  
3-1-02

Honorable Commissioner for Patents  
Washington DC 20231

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FEB 28 2002

## AMENDMENT

GROUP 3600

Sir:

In response to Office action of Nov 17, 2001 please amend the above-identified application as follows:

**In the Specification:**

Please replace the paragraph beginning on page 4, line 6 with the following rewritten paragraph:

-- FIG 2 shows how the components of the pulley system are disposed relative to each other and the path that tape 2 follows. Tape 2 passes over top assembly top roller 3, under bottom assembly bottom roller 7, over top assembly middle roller 4, under bottom assembly top roller 6, over top assembly bottom roller 5, and finally is attached to the top of bottom block assembly 9. From FIG 2 it can be seen that the rollers comprising each block assemblies are of different diameters. This permits the multiple plies of tape to avoid touching. This configuration reduces friction when the tape is being extended or retracted. FIG. 3 shows how the components are disposed internally to post 10.

**In the Claims:**

Please amend claim 1 as follows:

6. 1. (Amended) An extendible guidance tape crowd control stanchion comprising (a) a base, (b) a post attached to said base, (c) a fixed top block assembly attached to said post, said top block assembly comprising a plurality of rollers, (d) a movable bottom block assembly contained within said post, said bottom block assembly comprising a plurality of rollers and a weight, (e) an extendible and retractable guidance tape laced between said
6. 1.